

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	15441	("380").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S2	36541	("700").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S3	11250	("703").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S4	7871	("706").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S5	56957	("707").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S6	23518	("708").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S7	56392	("709").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S8	29820	("710").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S9	35349	("711").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S10	19057	("712").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S11	32206	("713").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S12	43872	("714").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S13	29964	("715").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S14	14549	("717").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S15	7001	("718").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47

EAST Search History

S16	7322	("719").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S17	11925	("726").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/02 15:47
S18	344896	S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17	US-PGPUB; USPAT; IBM_TDB	ADJ	ON	2007/08/04 18:02
S19	15456	("380").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S20	36570	("700").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S21	11261	("703").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S22	7875	("706").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S23	57000	("707").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S24	23524	("708").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S25	56467	("709").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S26	29858	("710").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S27	35391	("711").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S28	19070	("712").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S29	32258	("713").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S30	43923	("714").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09

EAST Search History

S31	29999	("715").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S32	14562	("717").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S33	7009	("718").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S34	7328	("719").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S35	11945	("726").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:09
S36	345225	S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 or S27 or S28 or S29 or S30 or S31 or S32 or S33 or S34 or S35	US-PGPUB; USPAT; IBM_TDB	ADJ	ON	2007/08/08 15:09
S37	757	S36 and (smart card).ab.	US-PGPUB; USPAT; IBM_TDB	ADJ	ON	2007/08/08 15:44
S38	1327	(710/1).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/08 15:44
S39	133	S37 and biometric	US-PGPUB; USPAT; IBM_TDB	ADJ	ON	2007/08/08 15:48


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All Results
[A Jain](#)
[S Pankanti](#)
[P Phillips](#)
[R Bolle](#)
[R Sanchez-Reil...](#)

[... park information management system utilizing partitioned **smart cards** and **biometric verification** - all 3 versions »](#)

RP Sehr - US Patent 5,566,327, 1996 - Google Patents

[... UTILIZING PARTITIONED **SMART CARDS** AND **BIOMETRIC VERIFICATION** 5 ...](#)

The **smart card** reader

11 allows the PC ... inserted, or placed in the vicinity of, the **smartcard** reader. ...

[Cited by 46](#) - [Related Articles](#) - [Web Search](#)

[A practical guide to **biometric** security technology - all 11 versions »](#)

S Liu, M Silverman - IT Professional, 2001 - [ieeexplore.ieee.org](#)

... sales (POS) system vendors are working on the cardholder **verification** method, which would enlist **smart cards** and **biometrics** to replace signature **verification**. ...

[Cited by 76](#) - [Related Articles](#) - [Web Search](#)

[Robust text-independent speaker identification using Gaussian mixture speaker models - all 3 versions »](#)

DA Reynolds, RC Rose - Speech and Audio Processing, IEEE Transactions on, 1995 - [ieeexplore.ieee.org](#)

... 14, Access control system with hand geometry **verification** and **smart cards** ... 15,

Smart

card information and operations using **biometrics**, Sanchez-Reillo, R ...

[Cited by 528](#) - [Related Articles](#) - [Web Search](#)

[Vital signs of identity \[biometrics\] - all 3 versions »](#)

B Miller - Spectrum, IEEE, 1994 - [ieeexplore.ieee.org](#)

... **Biometrics** dates back to the ancient Egyptians, who ... 1. 5ene, al area — Smsrt card liJ \$400 ... vaults and telecomnuni- salons area **Smart card** anti fingerprint ...

[Cited by 161](#) - [Related Articles](#) - [Web Search](#)

[An introduction evaluating **biometric** systems - all 5 versions »](#)

PJ Phillips, A Martin, CL Wilson, M Przybocki - Computer, 2000 - [ieeexplore.ieee.org](#)

... of **biometrics** and related technolo- gies like **smart cards** and digital ... RM McCabe, "Simple Test Procedure for Image-based **Biometric Verification** Systems," NIS ...

[Cited by 111](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[\[book\] Biometrics: Personal Identification in Networked Society - all 4 versions »](#)

AK Jain, R Bolle, S Pankanti - 1999 - [books.google.com](#)

... 1 8. **Smartcard** based authentication NK Ratha and R. Bolle 369 ... Often, the **biometric**

technologies seem to be embedded in other technologies (eg, **smart card**). ...

[Cited by 506](#) - [Related Articles](#) - [Web Search](#) - [Library Search](#)

[... and transaction processing system and method utilizing **biometric** authorization and digital ... - all 6 versions »](#)

SH Maes, J Sedivy - US Patent 6,016,476, 2000 - Google Patents

... unit (CPU) for processing voice commands and for processing **biometric** data to ...

The
PDA includes a Universal **Card**, which is common generic **smartcard** with a ...
[Cited by 52](#) - [Related Articles](#) - [Web Search](#)

Access control system with hand geometry verification and smartcards - all 4 versions »

R Sanchez-Reillo, A Gonzalez-Marcos - Aerospace and Electronic Systems Magazine, IEEE, 2000 - [ieeexplore.ieee.org](#)
... control system that joins the uniqueness of **biometric verification**, as well as the storage security and processing capabilities of **smart cards**, is defined here ...
[Cited by 15](#) - [Related Articles](#) - [Web Search](#)

Writing instrument with multiple sensors for biometric verification - all 2 versions »

J Marshall - US Patent 5,774,571, 1998 - Google Patents
... of a person without having to use a **smart card**. ... In this sense the **biometric** instrument
pen would be ... a perspective view of signature **verification** apparatus; FIG ...
[Cited by 20](#) - [Related Articles](#) - [Web Search](#)

Fingerprint verification using smart cards for access control systems - all 4 versions »

R Sanchez-Reillo, C Sanchez-Avila - Security Technology, 2001 IEEE 35th International Carnahan ..., 2001 - [ieeexplore.ieee.org](#)
... Intelligent **Biometric** Techniques in Fingerprint and Face Recognition. ... "Access Control System with Hand Geometry **Verification** and **Smart Cards**". ...
[Cited by 9](#) - [Related Articles](#) - [Web Search](#)

Including Biometric Authentication in a smart card operating system - all 3 versions »

R Sanchez-Reillo - Int. Conf. on Audio-and Video-based Person Authentication, ..., 2001 - Springer
... such a task is through **Card Holder Verification** Keys, which are ... problem, has worked
in enabling a **Biometric** Authentication inside a **smart card**, in order ...
[Cited by 7](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Securing information and operations in a smart card through biometrics - all 2 versions »

R Sanchez-Reillo - Security Technology, 2000. Proceedings. IEEE 34th Annual ..., 2000 - [ieeexplore.ieee.org](#)
... The only way to perform a real user authentication, is through **biometrics**. But **biometric verification** cannot be found in any commercial **smart card** nowadays. ...
[Cited by 7](#) - [Related Articles](#) - [Web Search](#)

The FERET evaluation methodology for face-recognition algorithms - all 17 versions »

PJ Phillips, H Moon, SA Rizvi, PJ Rauss - Pattern Analysis and Machine Intelligence, IEEE Transactions ..., 2000 - [ieeexplore.ieee.org](#)
... For **verification** applications where **biometric** signatures are stored on **smart card**, a user inserts a **smart card** into an electronic reader and provides a new ...
[Cited by 817](#) - [Related Articles](#) - [Web Search](#) - [Library Search](#) - [BL Direct](#)

Memory card having a biometric template stored thereon and system for

using same - all 2 versions »

MJ Stock, K Davis, JW Myers... - US Patent 6,011,858, 2000 - Google Patents

... illustrate the process for providing **biometric verification** of the ... a microprocessor-based memory **card** commonly referred to as a "**Smart Card**." In the ...

[Cited by 17](#) - [Related Articles](#) - [Web Search](#)

Development of personal authentication systems using fingerprint with smart cards and digital ...

Y Seto - Control, Automation, Robotics and Vision, 2002. ICARCV 2002. ..., 2002 - [ieeexplore.ieee.org](#)

... the **smart card** based on the **biometrics verification**. The **biometrics verification** has to be executed in the **card** for security purposes. ...

[Cited by 8](#) - [Related Articles](#) - [Web Search](#)

Microprocessor smart cards with fingerprint user authentication - all 5 versions »

R Sanchez-Reillo, C Sanchez-Avila, L Mengibar-Pozo - Security Technology, 2002. Proceedings. 36th Annual 2002 ..., 2002 - [ieeexplore.ieee.org](#)

... commercial **smart card** nowadays. The authors have worked in improving **smart card** security placing **biometric verification** inside it. ...

[Cited by 7](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Biometrics: The future of identification - all 6 versions »

S Pankanti, RM Bolle, A Jain - Computer, 2000 - [ieeexplore.ieee.org](#)

... s template is stored on a **smart card** and issued ... During the identification stage, the **biometric** sensor captures ... be in the form of **verification**, authenticating a ...

[Cited by 74](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

A robust speaker verification biometric - all 3 versions »

MH George, RA King - Security Technology, 1995. Proceedings. Institute of ..., 1995 - [ieeexplore.ieee.org](#)

... FANN is implementing the **biometric** functions required ... 5 Typical TESPARIJFANN Speaker

Verification Architecture Ltd ... Union CASCADE Esprit **Smart Card** project which ...

[Cited by 13](#) - [Related Articles](#) - [Web Search](#)

Highly robust biometric smart card design - all 3 versions »

A Noore - Consumer Electronics, IEEE Transactions on, 2000 - [ieeexplore.ieee.org](#)

... 3 shows the proposed **smart card** architecture with embedded dual **biometric** sensors

and a cryptographic processor to speed the encryption and **verification** process ...

[Cited by 9](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Two-way authentication system between user's smart card and issuer-specific plug-in application ... - all 3 versions »

JC Elliott, JA O'Connell, L Ladouceur, W Altman, K ... - US Patent 5,036,461, 1991 - Google Patents

... identi-fication device, such as a **smart card** 12. ... in identify -ing a customer, such as **biometric** data or ... to someone attempt -ing fraudulent use of the **card**. ...

[Cited by 107](#) - [Related Articles](#) - [Web Search](#)

Multi-application smart cards and processing - all 8 versions »

J Domingo-Ferrer - Future Generation Computer Systems, 1997 - [vneumann.etse.urv.es](#)

... applications as well as **card**-initiated applications such as **biometric verification** (recognition of voice ... In order for **smart cards** to become multi ...

[Cited by 20](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Biometric identification - all 12 versions »

A Jain, L Hong, S Pankanti - Communications of the ACM, 2000 - portal.acm.org
... captured **biometric** characteristic with the person's own **biometric** template(s ... identity

usually via a magnetic-stripe **card**, login name, or **smartcard**, and the ...

[Cited by 144](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

The smartcard as a mobile security device - all 5 versions »

D Scheuermann - Electronics & Communication Engineering Journal, 2002 - ieeexplore.ieee.org

... Basic **smartcard** commands for **biometric** user **verification**, based on commands ...
On-card

matching provides a broad market for **smart- cards** with downloadable ...

[Cited by 8](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Iris-based biometric recognition using dyadic wavelet transform - all 4 versions »

C Sanchez-Avila, R Sanchez-Reillo, D de Martin- ... - Aerospace and Electronic Systems Magazine, IEEE, 2002 - ieeexplore.ieee.org

... brutal force attacks are impossible under a well-defined **smart card**). ... in classification,

ie, in a **biometric** recognition scheme, and in **biometric verification**. ...

[Cited by 15](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[book] Smart Card Security and Applications - all 4 versions »

M Hendry - 2001 - books.google.com

... viii **Smart Card Security and Applications** ... Passwords, tokens, and **biometrics**
Behavioral

andphysiometric. Requirements Recognition versus **verification**

[Cited by 61](#) - [Related Articles](#) - [Web Search](#) - [Library Search](#)

Anti-fraud verification system using a data card - all 2 versions »

J Drexler, CJ Dyball - US Patent 5,457,747, 1995 - Google Patents

... "**Smart Credit Cards**—The Answer to Cashless Shopping"; Stephen B ... A first **card**
writing

device has means for acquiring **biometric** information from a person ...

[Cited by 50](#) - [Related Articles](#) - [Web Search](#)

Cryptographic identification methods for smart cards in the process of standardization - all 3 versions »

HP Konigs - Communications Magazine, IEEE, 1991 - ieeexplore.ieee.org

... enter his PIN into the **card** for **verification**, the **card** ... In a **biometric** process, such as the fingerprint, the ... by a reference template stored on the **smart card**. ...

[Cited by 16](#) - [Related Articles](#) - [Web Search](#)

Development of personal authentication system using fingerprint with digital signature technologies - all 6 versions »

Y Isobe, Y Seto, M Kataoka - System Sciences, 2001. Proceedings of the 34th Annual Hawaii ..., 2001 - ieeexplore.ieee.org

... This paper presents a **biometrics**-based personal ... system in which a **smart card**, a Public ...

as an X.509 certificate, and fingerprint **verification** technologies are ...

[Cited by 13](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

BITS: a smartcard protected operating system - all 2 versions »

PC Clark, LJ Hoffman - Communications of the ACM, 1994 - portal.acm.org

... imposed by current technology, smartcards (and **smart**-tokens in ... These presentations result in the **smartcard** account being ... is incorporated into the **card**, it will ...Cited by 57 - [Related Articles](#) - [Web Search](#) - [Library Search](#) - [BL Direct](#)**Development of Personal Authentication Techniques Using Fingerprint Matching Embedded in Smart Cards - all 2 versions »**

S ISHIDA, M MIMURA, Y SETO - IEICE TRANSACTIONS on Information and Systems, 2001 - search.ieice.org

... This paper describes a fingerprint **verification** method based on a popular **biometric verification** technique that can be embedded in a **smart card**. ...Cited by 4 - [Related Articles](#) - [Cached](#) - [Web Search](#) - [BL Direct](#)**Fingerprint Verification System Involving Smart Card - all 2 versions »**

Y Gil, D Moon, S Pan, Y Chung - Information Security and Cryptology-ICISC, 2002 - Springer

... the current implementations of this solution have a common characteristic that the **biometric verification** process is solely accomplished out of the **smart card**. ...Cited by 4 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)**Touching Big Brother - all 4 versions »**

S Davies - Information Technology & People, 1994 - privacy.org

... tests showed that dynamic signature **verification** was by ... international standards anda **smart-card** system that ... the forerunner of a linked **biometric** system that ...Cited by 35 - [Related Articles](#) - [Cached](#) - [Web Search](#) - [BL Direct](#)**[book] Biometric Solutions for Authentication in an E-World - all 2 versions »**

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DD Zhang - 2002 - books.google.com

... 199 8.4 Proposed On-Line Dynamic Signature **Verification** 209 ... 21 8 9.2**Biometrics Data**Warehouse 221 ... Chapter 10 **SMART CARD APPLICATION BASED ON PALMPRINT** 243 ...Cited by 15 - [Related Articles](#) - [Web Search](#) - [Library Search](#)**Biometric input device with peripheral port - all 2 versions »**

CS Dunn, SJ Borza, G Freedman - US Patent 5,987,155, 1999 - Google Patents

... Filter and transform first signal received by **smartcard** to produce second ... As such, **smart** ... to provide a **biometric** input device including a peripheral **card** reader ...Cited by 19 - [Related Articles](#) - [Web Search](#)**[book] Automated Biometrics: Technologies and Systems - all 2 versions »**

DD Zhang - 2000 - books.google.com

... The **verification** process is like this: •The person being checked enters a password or slides his/her ID **card**. •The system captures his/her **biometrics** ...Cited by 112 - [Related Articles](#) - [Web Search](#) - [Library Search](#)**Smart card evolution**

KM Shaffer, JD Procaccino - Communications of the ACM, 2002 - portal.acm.org

... encryption schemes along with **biometric** identification (fingerprints ... www.microsoft.com/SMARTCARD/background.asp ... Processor-enabled **smart card** software is stored ...Cited by 24 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Securing data and financial transactions

A Stockel - Security Technology, 1995. Proceedings. Institute of ..., 1995 -
ieeexplore.ieee.org

... shopping network, on-line service, bank or a networked database, or, on a
transportable

medium such as a **smart card**. The **biometric verification** function can be ...

[Cited by 9](#) - [Related Articles](#) - [Web Search](#)

Radio telecommunication device and method of authenticating a user with a voice authentication token - all 3 versions »

PR Kennedy, TG Hall, WC Yip - US Patent 6,084,967, 2000 - Google Patents

... When the **smart card** 105 is inserted into the radiotelephone 105 the user ... 2 a
biometric

verification system in accordance with a voice **biometric** embodiment of ...

[Cited by 10](#) - [Related Articles](#) - [Web Search](#)

Multiple cross-check document verification system - all 4 versions »

VL Schatz - US Patent 5,341,428, 1994 - Google Patents

... of the **card** preferably an integrated circuit **card**, or "**smart card**". ... bearer by means
of the **card** deriva ... alternative, a digitized **biometric** identifier may be used ...

[Cited by 27](#) - [Related Articles](#) - [Web Search](#)

Enhancing security and privacy in biometrics-based authentication systems - all 17 versions »

NK Ratha, JH Connell, RM Bolle - IBM Systems Journal, 2001 - research.ibm.com

... where the template is stored in the **smartcard** and presented ... In a **smart card**
system

where the **biometrics** template is ... assign the customer a new credit **card** number ...

[Cited by 70](#) - [Related Articles](#) - [Cached](#) - [Web Search](#) - [BL Direct](#)

Fingerprint verification system on smart card - all 2 versions »

M Mimura, S Ishida, Y Seto - Consumer Electronics, 2002. ICCE. 2002 Digest of
Technical ..., 2002 - ieeexplore.ieee.org

... This paper presents a .fingerprint **verification** system operating ... the validity of
the **smart card** is confirmed ... Employing **biometric** authentica- tion [3] to manage ...

[Cited by 5](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

... methods for providing repetitive enrollment in a plurality of biometric recognition systems based ... - all 3 versions »

D Kanevsky, SH Maes - US Patent 6,092,192, 2000 - Google Patents

... write their PIN on the back of their ATM or **smart card**. ... the present invention
provides

the capability for remote **smartcard** or magnetic **card** activation/ 35 ...

[Cited by 13](#) - [Related Articles](#) - [Web Search](#)

Smart cards and biometrics: Your key to PKI

D Corcoran, D Sims, B Hillhouse - Linux Journal. Retrieved July, 1999 -
fargopartner.com

... keys secured with **biometrics** and signed (validated) by a government agency. ...
manager

for **smart-card** readers. ... information, visit www.linuxnet.com/smartcard. ...

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Smart Cards and Biometrics: The cool way to make secure transactions

D Corcoran, D Sims, B Hillhouse - Linux Journal, 1999 - portal.acm.org

... signing, hashing, encryption and key **verification**. ... visit <http://www.linuxnet.com/smartcard/>. ... Integrating **smart cards**, **biometrics** and public key cryptography ...
 Cited by 5 - [Related Articles](#) - [Web Search](#)

Impact of Artificial Gummy Fingers on Fingerprint Systems - all 3 versions »

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T Matsumoto, H Matsumoto, K Yamada, S Hoshino - Proceedings of SPIE, 2002 - lfc.net

... Ratha, NK and Bolle, R.: **SMARTCARD BASED AUTHENTICATION ... Fingerprint Verification**, in The **Biometric Report** 1999 ... t Get Your Fingers Burned, **SMART CARD RESERCH AND ...**

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Biometrics: A new era in security - all 5 versions »

G Lawton, C Brisbane - Computer, 1998 - ieeexplore.ieee.org

... market research, and consulting services on **smart-card** and ... just one stored file, **verification** systems generally ... On the other hand, **biometric** identification ...

Cited by 18 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Knuckle profile indentity **verification** system - all 5 versions »

C Colbert... - US Patent 5,594,806, 1997 - Google Patents

... template may be stored in a database or on a **card** (eg, a magnetic stripe **card**, or a **smart card**). ... In lieu of a magnetic stripe **card** or **smartcard**, the apparatus ...

Cited by 19 - [Related Articles](#) - [Web Search](#)

Low cost dynamic signature **verification** system - all 2 versions »

DJ Hamilton, J Whelan, A McLaren, I MacIntyre, A ... - Security and Detection, 1995., European Convention on, 1995 - ieeexplore.ieee.org

... can bring the enhanced security of a **biometric** check, even to ... for it to be integrated into an 'ultra-**smart card**' to be used as a credit **card** or secure ...

Cited by 11 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Novel **biometric** digital signatures for Internet-based applications - all 5 versions »

PK Janbandhu, MY Siyal - Information Management and Computer Security, 2001 - emeraldinsight.com

... x, y), signature (r, s) and **verification** time. ... However, **biometric** signature uniquely ...

an individual instead of his/her belongings (**smart cards**, servers, etc ...

Cited by 12 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Personal authentication through **biometric** technologies

FL Podio - Networked Appliances, 2002. Gaithersburg. Proceedings. 2002 ..., 2002 - ieeexplore.ieee.org

... Some applications may only require **verification** of a single individual's ... **Smart cards**

can store transaction information, the **biometric** template or ...

Cited by 6 - [Related Articles](#) - [Web Search](#)

Signature capture/**verification** systems and methods - all 2 versions »

R Beatson, MA Kelty, MJ Riley - US Patent 5,892,824, 1999 - Google Patents

... device for capture or capture and **verification** includes a ... in conjunction with an 1C **card**; an improved ... tech -nique for adapting to **biometric** signature changes ...

Cited by 27 - [Related Articles](#) - [Web Search](#)

Biometrics—Real Identities for a Virtual World - all 7 versions »

M Rejman-Greene - BT Technology Journal, 2001 - Springer

... by one person — among such tokens are **smart cards** with stored ... for a user — for exampleon a **smartcard**, and the ... made by the act of inserting the **card** into a ...Cited by 11 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)**iButton Enrolment and Verification Requirements for the Pressure****Sequence Smartcard Biometric - all 5 versions »**NJ Henderson, NM White, PH Hartel - ... of the International Conference on Research in **Smart Cards**, 2001 - Springer... whereby some device external to the **smart card** captures a ... for incorporation onto the **smartcard** itself ... Dallas Semiconductor's iButton Java **Card** platform [18 ...Cited by 3 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)**On enabling secure applications through off-line biometric identification - all 9 versions »**GI Davida, Y Frankel, BJ Matt - Security and Privacy, 1998. Proceedings. 1998 IEEE Symposium ..., 1998 - [ieeexplore.ieee.org](#)... require a storage device (eg, magnetic strip or **smartcard**) to store ... Authorization Process (**verification**) When a user presents a **card**, M **biometric** templates ...Cited by 73 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)**[book] Usability of Biometrics in Relation to Electronic Signatures - all 3 versions »**D Scheuermann, S Schwiderski-Grosche, B Struif - 2000 - [sit.fhg.de](#)... 11 ELECTRONIC SIGNATURES AND **BIOMETRICS** IN APPLICATION ... of biometrical authentication,ie **verification** or identification ... The **smartcard** technology as the most ...Cited by 15 - [Related Articles](#) - [View as HTML](#) - [Web Search](#) - [Library Search](#)**Security token and method for wireless applications - all 3 versions »**

PR Kennedy, TG Hall, DA Hardy - US Patent 6,084,968, 2000 - Google Patents

... If **biometric verification** of the user does not occur ... If **biometric verification** is successful, various limited access ... data received from the **smart card** 105 using ...Cited by 7 - [Related Articles](#) - [Web Search](#)**Collaborative fingerprint authentication by smart card and a trusted host - all 2 versions »**YS Moon, HC Ho, KL Ng, SF Wan, ST Wong - Electrical and Computer Engineering, 2000 Canadian ..., 2000 - [ieeexplore.ieee.org](#)... Our Project In our work, fingerprint comparison is chosen as the **biometrics** authentication tool ... I Master template file in **Smart card** ... **Smartcard**, Host cbputex ...Cited by 9 - [Related Articles](#) - [Web Search](#)**Fingerprint-based remote user authentication scheme using smartcards - all 3 versions »**JK Lee, SR Ryu, KY Yoo - Electronics Letters, 2002 - [ieeexplore.ieee.org](#)... scheme using only his own **Smart card** and fingerprint. Our fingerprint **verification** method is based on ... each user's knowledge, possession and **biometrics**, and this ...Cited by 23 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)**Writing implement for identity verification system - all 2 versions »**

GR Black - US Patent 6,307,956, 2001 - Google Patents

... applications involving pen-based computers and **smart-pens** ... present invention, one-to-many **biometric** serving as a system that can eventually replace **card-based** ...

[Cited by 9](#) - [Related Articles](#) - [Web Search](#)

[... for securely handling a personal identification number or cryptographic key using **biometric** ... - all 5 versions »](#)

GJ Tomko, A Stoianov - US Patent 5,712,912, 1998 - Google Patents

... as fingerprint or iris **verification**, some of them having been described in the prior art ... A **biometric** can be any physiological characteristic ... such as a **smart card** or in ...

[Cited by 18](#) - [Related Articles](#) - [Web Search](#)

[Keystroke dynamics as a **biometric** for authentication - all 8 versions »](#)

F Monrose, AD Rubin - FUTURE GENER COMPUT SYST, 2000 - cs.columbia.edu

... **Biometric** technologies are gaining popularity because when used in ... to the problem

of identity **verification** can be ... a person possesses (eg an ID **card**), or (c ...

[Cited by 48](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[Remote image capture with centralized processing and storage - all 12 versions »](#)

CR Ballard... - US Patent 5,910,988, 1999 - Google Patents

... Even if **smart cards** or UET **cards** had the ability to store signature and other **biometric**

data within the **card** for **verification**, the system would still have ...

[Cited by 24](#) - [Related Articles](#) - [Web Search](#)

[Mutual Authentication with **Smart Cards** - all 5 versions »](#)

B Bakker - USENIX Workshop on Smartcard Technology, may, 1999 - enee.umd.edu

... in the USENIX Workshop on **Smartcard** Technology ... assignment the application of **smart**

cards as identifiers ... So passports rely on **biometric verification** and the ...

[Cited by 6](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[Smart cards: integrating for portable complexity - all 5 versions »](#)

MT Smith - Computer, 1998 - ieeeexplore.ieee.org

... object-tracking information, or process **verification** information ... himself or herself through a **biometric** mechanism ... The **Smart Card** Forum (<http://www.smartcard...>)

[Cited by 11](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Smart cards - all 3 versions »](#)

CH Fancher - Scientific American, 1996 - sciamedigital.com

... **Smart cards** can store a PIN to improve security ... add a catalogue of other **biometric**

identifiers: voiceprints ... Presented with a **card** holding a reference pattern ...

[Cited by 21](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Hiding Fingerprint Minutiae in Images - all 4 versions »](#)

AK Jain, U Uludag - Proceedings of Third Workshop on Automatic Identification ..., 2002 - biometrics.cse.msu.edu

... not lead to a significant performance loss in fingerprint **verification**. ... attacks described in [9]. Fake **biometric** submission via a **smart card** that contains ...

[Cited by 11](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Written on the body: biometrics and identity - all 2 versions »

I van der Ploeg - ACM SIGCAS Computers and Society, 1999 - portal.acm.org

... in **biometrics** than Van Kralingen's '**verification**' practices ... A quick look at available **biometric** products soon ... the requested body part and a **smart card** on which ...

Cited by 12 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Biometric authentication: assuring access to information - all 7 versions »

AJ Harris, DC Yen - Information Management & Computer Security, 2002 - emeraldinsight.com

... Lastly, signature **verification** is a measurement of how a ... **Smart card** technology is more expensive but offers more ... ability and storage of a **biometric** template. ...

Cited by 7 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Method for verifying an identification **card** and recording **verification** of same - all 2 versions »

W Berson, S Kumar - US Patent 5,742,685, 1998 - Google Patents

... For example, for a **smart card** or a ... second representation of said **biometric** characteristic and a ... **card** said encrypted signal having a first part comprising a ...

Cited by 13 - [Related Articles](#) - [Web Search](#)

Signature **verification** revisited: promoting practical exploitation of **biometric** technology - all 5 versions »

MC Fairhurst - Electronics & Communication Engineering Journal, 1997 - ieeexplore.ieee.org

... down for ease of recall, entry **cards** and other ... natural and acceptable form of **biometric**,

this paper ... the exploitation of signature **verification** technology in a ...

Cited by 15 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Methods and apparatus for a travel-related multi-function smartcard - all 7 versions »

W Hohle, F Petit - US Patent 6,101,477, 2000 - Google Patents

... regard, a variety of known **smart card** operating picofarads ... however, that any of the common **smartcard** file structure ... 530 preferably comprises payment **card** EF 510 ...

Cited by 18 - [Related Articles](#) - [Web Search](#)

Anti-fraud voter registration and voting system using a data **card** - all 2 versions »

J Drexler, CJ Dyball - US Patent 5,412,727, 1995 - Google Patents

... 3/1981 United Kingdom 235/386 OTHER PUBLICATIONS "**Smart Credit Cards**: The ... A first

card writing device has means for acquiring **biometric** information from ...

Cited by 35 - [Related Articles](#) - [Web Search](#)

Hiding a Face in a Fingerprint Image - all 9 versions »

AK Jain, U Uludag, RL Hsu - Proc. International Conference on Pattern Recognition (ICPR), 2002 - doi.ieeecomputersociety.org

... to a significant performance loss in fingerprint **verification**. ... to the fingerprint stored on his/her **smart card**. ... by a human in a supervised **biometric** application ...

Cited by 11 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Networked Biometrics Systems—Requirements Based on Iris Recognition - all 6 versions »

MM Gifford, DJ McCartney, CH Seal - BT Technology Journal, 1999 - Springer

... The newly generated **biometric** data is compared with the enrolment ... 2.1

Verification

versus identification ... a username or by presenting a **smart card** — then, in ...

[Cited by 8](#) - [Related Articles](#) - [Web Search](#)

[BOOK] Smart Cards and Biometrics in Privacy-sensitive Secure Personal Identification Systems. - all 25 versions »

SC Alliance - 2002 - datacard.com

... Finally, with the latest secure **smart card** microcontrollers, sufficient on-card processing power ... exists to perform the **biometric** match, providing a ...

[Cited by 2](#) - [Related Articles](#) - [Web Search](#) - [Library Search](#)

Iris recognition for biometric identification using dyadic wavelettransform zero-crossing

D de Martin-Roche, C Sanchez-Avila, R Sanchez- ... - Security Technology, 2001 IEEE 35th International Carnahan ..., 2001 - [ieeexplore.ieee.org](#)

... attacks are impossible under a well-defined **smart card**). ... No sin- gle **biometrics** is expected to effectively ... **Verification** refers to the problem of confirming or ...

[Cited by 7](#) - [Related Articles](#) - [Web Search](#)

Biometric hash based on statistical features of online signatures - all 2 versions »

C Vielhauer, R Steinmetz, A Mayerhofer - Pattern Recognition, 2002. Proceedings. 16th International ..., 2002 - [ieeexplore.ieee.org](#)

... output of typical online signature **verification** systems are ... a signature input with a **biometric** hash vector ... strategies (eg c-Commerce, **smart cards**), hash values ...

[Cited by 26](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Method for securely using digital signatures in a commercial cryptographic system - all 6 versions »

FW Sudia - US Patent 5,659,616, 1997 - Google Patents

... Certificates can be used also to ensure key confinement and non-decryptionrequirements

of **smart- cards** in this system. 37 Claims, 15 Drawing Sheets ...

[Cited by 82](#) - [Related Articles](#) - [Web Search](#)

Identification and security using biometric measurements - all 3 versions »

PK Pearson, TE Rowley, JR Upton - US Patent 5,991,408, 1999 - Google Patents

... a user in a **biometric** based **verification** system can be ... A representation of a **biometric**

element ofthe user is ... available to the public, on a **smart card**, on the ...

[Cited by 13](#) - [Related Articles](#) - [Web Search](#)

Recent Advances in Fingerprint Verification - all 9 versions »

AK Jain, S Pankanti, S Prabhakar, A Ross - Invited Paper for 3rd Int. Conference on Audio-and Video- ..., 2001 - Springer

... F. Karen, "Encryption, **smart cards**, and fingerprint ... Yeung and S. Pankanti, "**Verification**

Watermarks on ... R. Bolle, "Secure **Biometric** Authentication", Proc ...

[Cited by 13](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Biometrics and Privacy

R Clarke - Proc. Computers, Freedom & Privacy, 2002 - [anu.edu.au](#)

... following principle was developed in relation to a proposed **smart card** application by ... **Smartcard** applications should only utilise **biometric** technology when ...
[Cited by 10](#) - [Related Articles](#) - [Cached](#) - [Web Search](#)

Self actuating network **smart card** device - all 3 versions »

SN Horne, GD Indorf, SK Bowman Jr, DW Carr - US Patent 6,247,644, 2001 - Google Patents

... UserApproachesthe door and insertstheir **SmartCard** ... that limit applica -tions for **smart card** devices also ... device, fingerprint readers and other **biometrics** devices ...
[Cited by 8](#) - [Related Articles](#) - [Web Search](#)

Authentication for secure environments based on iris scanningtechnology - all 2 versions »

S Sanderson, JH Erbetta, M DERA - Visual Biometrics (Ref. No. 2000/018), IEE Colloquium on, 2000 - [ieeexplore.ieee.org](#)

... time varies according to which **biometric** technology is employed ie enrolment for speaker **verification** uses four ... stored centrally or on a **smart card** and the ...
[Cited by 6](#) - [Related Articles](#) - [Web Search](#)

An Introduction to **Smart Cards**

S Petri - Litronic, Inc.,. COPYRIGHT, 1998 - [artofconfusion.org](#)

... 95% of the manufacturers in the **smart card** industry, including ... passwords can be chosen and stored on the **smartcard**. ... order to unlock the services of the **card**. ...
[Cited by 12](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Biometrics: privacy's foe or privacy's friend? - all 2 versions »

JD Woodward - Proceedings of the IEEE, 1997 - [ieeexplore.ieee.org](#)

... in the form of identification or **verification** is needed ... Credit **card** fraud is estimated at \$2 billion per year ... losses could be eliminated by **biometric** scanning [2 ...
[Cited by 58](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Remote identity **verification** technique using a personal identification device - all 6 versions »

SP Hsu, JM Ling, AF Messenger, BW Evans - US Patent 6,182,221, 2001 - Google Patents

... The use of "**smart cards**" containing even more information ... to carry multiple scannable **cards**, and the ... means, which compares the **biometric** measurements obtained ...
[Cited by 20](#) - [Related Articles](#) - [Web Search](#)

Graphics and security: exploring visual biometrics - all 12 versions »

KL Kroeker - Computer Graphics and Applications, IEEE, 2002 - [ieeexplore.ieee.org](#)

... Uncooperative subjects are unaware that a **biometric** system is in place, or don't ... In **verification** mode, the face print can be stored on a **smart card** or in ...
[Cited by 8](#) - [Related Articles](#) - [Web Search](#)

Integrating **biometric** techniques with electronic signature for remote authentication

L Bechelli, S Bistarelli, F Martinelli, M ... - ERCIM News,(49), 2002 - [ercim.org](#)

... remote system or unlock of a **smart card** to sign ... the fingerprint can only be used with that **smartcard**); ... our industrial partners with template-on-**card** technologies ...
[Cited by 4](#) - [Related Articles](#) - [Cached](#) - [Web Search](#)

Iris Recognition With Low Template Size - all 4 versions »

R Sanchez-Reillo, C Sanchez-Avila - ... International Conference on Audio and Video-based **Biometric** ..., 2001 - Springer

... Among all the **biometric** techniques known nowadays ... low template sizes and fast **verification** algorithms ... systems, such as an Integrated Circuit **Card (smart cards)**. ...

[Cited by 8](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[book] Army Biometric Applications: Identifying and Addressing Sociocultural Concerns - all 6 versions »

JD Woodward Jr, EM Newton, KW Webb, A Center - 2001 - books.google.com

... using multiple **biometrics**; and using **verification** rather than ... In addition, **biometrics**

that are less intrusive or ... Holding template data on a **smart card** in the ...

[Cited by 7](#) - [Related Articles](#) - [Web Search](#) - [Library Search](#) - [BL Direct](#)

Secure card for E-commerce and identification - all 4 versions »

A Vardanyan, W Reed, G Freedman - US Patent 6,079,621, 2000 - Google Patents

... 20 mation is stored within the **smart card** according to ... is completed, a user with the **smartcard** has access ... What is claimed is: 1. A **card** comprising: amagnetic ...

[Cited by 8](#) - [Related Articles](#) - [Web Search](#)

Smart Cards in Electronic Commerce - all 5 versions »

NT Trask, MV Meyerstein - BT Technology Journal, 1999 - Springer

... user is known as **card holder verification** (CHV ... requiring 'something you own' (the **smart card**) and 'something ... achieved from the use of **biometric** techniques ...

[Cited by 5](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Secure cryptographic methods for electronic transfer of information - all 5 versions »

SA Brands - US Patent 5,696,827, 1997 - Google Patents

... often inconvenient, and enables the **smart card** to send ... validating for example a debit

or credit **card** payment, eo word or **biometric verification** mechanisms. ...

[Cited by 32](#) - [Related Articles](#) - [Web Search](#)

A Speaker Verification Biometric In 40 Bytes

TC Phipps, RA King - CardTech/SecurTech, 1997 - dsp.sun.ac.za

... SV engine that secures a robust **verification** performance by ... artificial neural networks

into a **biometric** of only ... as to state-of-the-art **Smart-Card** embodiments. ...

[Cited by 2](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Smart card with integrated fingerprint reader - all 3 versions »

PJ Baratelli - US Patent 6,325,285, 2001 - Google Patents

... ment of the present invention in which the **smart card** stores **biometric** information for ... embodiment of the present invention in which **verification** of the ...

[Cited by 6](#) - [Related Articles](#) - [Web Search](#)

Using technology to detect and prevent terrorism - all 3 versions »

S Ham, RD Atkinson - Washington, DC: Progressive Policy Institute, 2002 - ndol.org

... **Smart cards** are simply **cards** that have been implanted ... the **biometric** data written on the **card** (photographs, height ... version of a unique **biometric** identifier, such ...

[Cited by 4](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Systems and methods for **biometric** identification using the acoustic properties of the ear canal - all 6 versions »

AM Bouchard, GC Osbourn - US Patent 5,787,187, 1998 - Google Patents

... ment of a **biometric** identity **verification**/recognition system ... Unlike some more fragile

biometric systems, the ... card, on a **smart card** (**Smart cards** are plastic ...

[Cited by 10](#) - [Related Articles](#) - [Web Search](#)

Chip-based ID: Promise and peril

R Clarke - Proceedings of the International Conference on Privacy, ..., 1997 - anu.edu.au

... organisations are increasingly attracted to **biometrics** ... performed without the disclosure,

verification and recording ... perhaps per week, your **smart card** can enable ...

[Cited by 20](#) - [Related Articles](#) - [Cached](#) - [Web Search](#)

Smart card with fingerprint image pass-through - all 3 versions »

MF Angelo, MB Tellez, SH Park - US Patent 6,182,892, 2001 - Google Patents

... THE INVENTION This application relates to **smart card** fingerprint authentication, in particular, to imprint and other **biometric** digitization and **verification**. ...

[Cited by 3](#) - [Related Articles](#) - [Web Search](#)

Tokenless **biometric** electronic rewards system - all 5 versions »

US Patent 6,012,039, 2000 - freepatentsonline.com

... made portable memory devices such as **smart cards** or magnetic ... system will cost significantly more than the "dumb" **card**. A **smartcard** costs in excess of \$3, and ...

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